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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,341	01/18/2002	Philippe Dupuy	217694US2PCT	6469

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EXAMINER

VY, HUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 09/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,341

Applicant(s)

DUPUY, PHILIPPE

Examiner

Hung T Vy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-18 and 22-32 is/are rejected.
- 7) ☒ Claim(s) 19-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.



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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. In response to amendment filed on 07/17/2003, claims 13-32 are pending in this application as a result of the addition of claims 25-32.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1²18 and 22-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Dube, U.S. patent No. 5,619,522 in view of Minoru Kojuma, European patent App. No. 94109720.6 (Pub. No. 06313355).

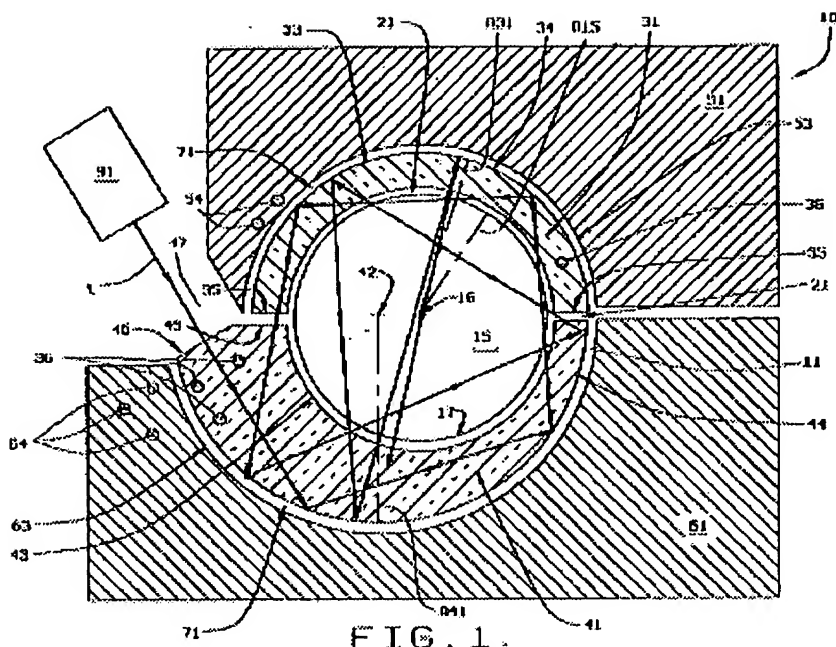
Regarding claims 13-14, Dube discloses an optical pumping module and a method for optical pumping a light amplifying medium, comprising a light amplifying medium (15), at least one light source (91) for optically pumping the amplifying medium (15) and a reflector which encircles the amplifying medium (15) and the wall of the reflector (44 and 34) is configured to reflect light from the source, wherein the reflector is partly or totally (see column 8, line 29-31) and the source (91) is orientated so as to send a beam directly stemming from this source towards the wall of the reflector so that this beam undergoes successive partly or totally reflections thereon and the amplifying

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medium (15) is optically pumped by the sole light reflected by the wall of the partly or totally reflector (See fig. 1 below), but Dube does not disclose the diffusive reflector. However, Minoru Kojima discloses the wall of a diffusive reflector (See column 1, line 42-48, and fig. 2). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Dube to have diffusive reflector as taught by Minoru Kojima because those skilled in the art will recognize that such modification and variations can be made to make the excitation uniform (See column 1, line 47) without departing from the spirit of the invention.

Regarding claims 15-18, and 22-24, Dube discloses the module, wherein the amplifying medium (15) forms a cylindrical rod (See column 5, line 2-3) with a substantially circular base, the light source (91) is for transverse optical pumping of this medium (15), and the wall of the reflector forms a cylinder with generatrices parallel to an axis of the amplifying medium (See fig 1 below), the base of the cylinder formed by the wall of the reflector is selected from substantially regular polygons, ellipses (See fig 1 and fig. 6), the light source (91) is a light emitter and this light emitter is selected from a laser diode, a laser diode array, a row of laser diode arrays, a stack of laser diode arrays, and a combination of the row and the stack, the arrays being parallel to generatrices of the cylinder formed by the wall of the reflector (See column 1, line 43-55), the module comprising several blocks (see fig 1), the light source (91) is placed in a gap formed

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between two adjacent blocks (See fig 1), each block comprising a planar face (see column 4, line 18-21), the light source is a light emitter (See column 1, line 49).

Regarding claim 25-32, Minoru Kojuma discloses method for optical pumping a light-amplifying medium, wherein the wall of the diffusive reflector comprises a diffusive ceramic (See column 1, line 47), and It would have been obvious to one having ordinary skill in the art at the time the invention was made to have different material for diffusive reflector, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Allowable Subject Matter

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3. Claims 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, since the prior art of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed plural blocks, each block comprising a planar face, configured to reflect the light from the source in diffusive manner, wherein blocks are electrically conducting and the laser diode or the laser diode arrays are electrically powered by the two blocks.

Response to Arguments

4. Applicant's arguments with respect to claims 1-18 and 22-32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (703) 605-0759.

The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



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Hung T. Vy
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August 27, 2003